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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,923	06/25/2007	Jakob Maier	4100.P0424US	5881
23474 7590 02/03/2010 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631				
EXAMINER O'HARA, BRIAN M				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,923

Applicant(s)

MAIER ET AL.

Examiner

Brian M. O'Hara

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 80-138 is/are pending in the application.
- 4a) Of the above claim(s) 113-123 and 131-138 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 80-112 and 124-130 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/25/2007
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Claims 80-112 and 124-130 in the reply filed on 08/31/2009 is acknowledged. The traversal is on the ground(s) that a search for Group 1 would include the elements found in the other groups. This is not found persuasive because Groups II and III are drawn to different inventions.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 113-123, 131-145, and 146-158 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 08/31/2009.

Drawings

3. The drawings are objected to because Fig. 4g appears to be 3 separate Figures. Each Figure should have its own figure label. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the

several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figures 1a and 1b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "217" has been used to designate both milk lines in Fig. 2a and operating control in Figs. 2f and 2g. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 90 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the limitation of a "holder" renders this claim indefinite because it is unclear if the holder (200 and 300 in the specification) is supposed to be the same as the retaining device.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 80-82, 90-94, 98-112, and 124-130 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Lingen et al. (WO 02/15676 A1) in view of Maier, Jr. (WO 02/069696 A1).** Van der Lingen et al. discloses a retaining device (1) for

the manual removal of teat cups (6) with a fastening device (2) for fixing the retaining device at a predetermined milking position (as shown in Fig. 1), wherein the retaining device (1) furthermore is formed to hold each of a multiple number of teat cups (6, See Fig. 2) in a fixed position relative to the others during a first operational phase (Fig. 2), and to allow manual access to each of the retained teat cups (6) in such a way that, during a second operational phase (Fig.1), each teat cup (6) is manually movable (See arrow in Fig. 1; teat cup could also be moved manually) relative to the retaining device (1) and at least one additional teat cup (6) in more than one direction.

10. Van der Lingen et al. further discloses a stimulation mechanism (robotic arm shown in Fig. 1) but does not disclose it using a rhythmic movement. Maier, Jr. teaches a retaining device, wherein the retaining device (100) furthermore has a stimulation mechanism (306) that is formed to act mechanically on at least one milk hose (305) and / or control hose (304) that connects a teat cup (302; vibrations are transferred to the hoses via the teat cup) to the retaining device during the second operational phase, for the purpose of inciting a rhythmic movement (306 can incite a variety of vibrations).

11. At the time of invention, it would have been obvious to add the stimulation mechanism of Maier, Jr. to the retaining device of Van der Lingen et al. Additionally, it would have been obvious to enable the robotic arm of Van der Lingen et al. to mechanically vibrate in view of the teaching of Maier, Jr. Further still, the cylinders (10 and 12) of Van Der Lingen et al. could be controlled to incite rhythmic movement of the milk hoses. The motivation for doing so would have been to provide pre-stimulation to the teats; the pre-stimulation being highly controllable (since it's a separate system as

opposed to pulsing the suction) and would not require the use of pulsed suction directly to the teats.

12. Regarding claims 81 and 82, Van der Lingen et al. discloses the retaining device wherein: the retaining device has a container (bottom part of 7 containing elements 8) in which the teat cups are introduced at least partially during the first operational phase; furthermore comprises a guide device (14 and 15) for guiding milk hoses (13) during the movement of the teat cups (6) relative to the retaining device.

13. Regarding claims 90-94 Van der Lingen et al. discloses the retaining device wherein: the fastening device has a holder (top portion of element 7) for attachment to a milking parlor support (See cross beams in the background of Fig.1); the fastening device can be adjusted in such a way that the longitudinal axes of the milking cups are arranged virtually horizontally (See teat cups in Fig. 1); the fastening device is formed in such a way that the retaining device can be moved from a first position (via 10 and 12, Shown in Fig.1), which corresponds to the first operational phase, into at least a second position for cleaning at least an area of the teat cups (Cleaning position shown in Fig. 2); at least an area of the retaining device is manufactured of plastic (the use of plastic is an obvious design choice since it is easy to clean, Additionally Maier, Jr. teaches the use of plastic, element 350), said area holding the teat cups; and which furthermore has one or more cleaning connectors (See pipes running from elements 17).

14. Regarding claims 98-100, Van der Lingen et al. discloses a cleaning device (9+17) which can be moved from one position to a second position (via 10), the cleaning

device has a sealing element (17); the sealing element having at least one nozzle element ("Water and air conduits" Page 5, Line 32).

15. Regarding claims 101 and 102, the apparatus of Van der Lingen et al. inherently has a power supply unit that is pneumatically driven in order to power the cylinders 10 and 12.

16. Regarding Claim 103-106, Maier, Jr. discloses a milk temperature sensor; a drive element (306) and actuator element (307) connected to a milk hose (via the teat cup); and a control mechanism (602).

17. Regarding claims 107-112 Van der Lingen et al. discloses a holding area (8) for the teat cups; hose sections (13) which are provide for connection to the teat cups (6) having a guide section (section which must curve over wheels 14 and 15); the hose section having a milk hose and a control hose (in order to provide modern suction element 13 of Van der Lingen et al. would inherently have control and milk hoses); a device for pulling during post milking ("tensioning means" Page 5, Line 29); and a multiple number of teat cups (6) and connection hoses (13).

18. Regarding Claims 124-130, Van der Lingen et al. further discloses a milking parlor (4); a support (top portion of element 7); multiple number of teat cups (6); a fastening device (11) which can pivot into a milking and cleaning/disinfection position (can be pivoted to many positions via 12); the container has a device for disinfection (17); and further comprises a hose guide (14 and 15).

19. **Claims 83-89, 95-97, and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Lingen et al. and Maier, Jr. as applied to claim 80**

above, and further in view of Nordegren et al (US Patent 4,011,838 A). Van der Lingen et al. and Maier, Jr. disclose the retaining device as described above including individually retracting a milk hose when a milk flow sensor sees a minimum amount of milk flow (See Page 5, Lines 24-29 of Van der Lingen et al.) but do not disclose stopping the vacuum. Nordegren et al. teaches a retaining device (2) further comprising a controllable vacuum switching mechanism (16) that is formed to apply an operating vacuum to each of the teat cups in a controllable manner; wherein the vacuum switching mechanism (16) has: a control switch (44-47) for each of the teat cups; an operating mechanism that switches the operating vacuum depending on the distance of the teat cup from the retaining device (i.e. off when inside the container); comprises a turn-off device (16 controls 44-47 based on information from 14) that is formed to decouple a teat cup from the operating vacuum individually and automatically in the case of a loss of the milking vacuum in that teat cup. At the time of invention, it would have been obvious to one of ordinary skill in the art to supply the retaining device of Van der Lingen et al. and Maier, Jr. with the controllable vacuum mechanism of Nordegren et al. to more efficiently control pressure losses in the system if a teat cup becomes dislodged.

20. Regarding claims 87-89, 95-97, and 103, the Van der Lingen et al. reference eludes to the fact that the milking box is hooked up to a milking installation, by showing hoses and lines that inherently run to some sort of milk collection area, but does not disclose the specifics of the connections.

21. Regarding claims 87-89 Nordegren et al. further discloses several connectors that make possible a connection to one or more milk hoses (12) that connect the retaining device to a milking installation (12 runs to a milking installation) and to a vacuum line (34) of the milking installation; hose sections (portions between 4-7 and 12), wherein one end of each is connected to a connector (inherently it is connected via a connector) and wherein the other end of each can be connected to a teat cup (4-7); and wherein each hose section has at least one control hose section (48-51), which can be connected on one end to a teat cup and on the other end to a corresponding control connector.
22. Regarding claims 95-97, Nordegren et al. further discloses controllable valves (44-47 and 36-39), which can switch the vacuum to one of the teat cups (via 48-51), and can be operated electronically (52-55).
23. Regarding Claims 103, Nordegren et al. further discloses a sensor (14).
24. At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the retaining device of Van der Lingen et al. and Maier, Jr. with the hose sections including a sensor, valves, and vacuum lines of Nordegren et al. The motivation for doing so would have been to hook up the retaining device of Van der Lingen et al. and Maier, Jr. to a modern milking facility for the purposes of gathering the milk from the cows.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. O'Hara whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael R. Mansen can be reached on (571)272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael R Mansen/
Supervisory Patent Examiner, Art Unit 3644

/B. M. O./
Examiner, Art Unit 3644